

Work Order ID 80586

February-23-12 1:24:08 PM

80586

Page 1

Item ID: D2896-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Support

Start Date: 23/02/2012 Start Qty: 20.00

20

Cust Item ID:

Required Date: 08/03/2012 Req'd Qty: 20.00

20

Customer:

Reference:

Approvals: Process Plan: M.C.J.

Date: 12/02/23 Tooling:

Date:

Run Start ***NR1***

QC:

Date: SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2896	C								

100 HAAS CNC VERTICAL MACHINING #1 0.00

100

HAAS I

HAAS CNC vertical machine #1

Memo

Machine as per Folio FA167

Folio Rev: B

Dwg Rev: C

12/03/21

11 3

12/03/25

Deburr

****Program Batch #*****

110 QC1- Inspect dimensions to dimension sheet 0.00

110

QC

Quality Control

Memo

0.00

11 3

12/03/25

W/O: 80586

WORK ORDER CHANGES

DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2896-1 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/03/21 <u>Part #16</u>	100	Note Perpendicularity is out of tolerance should be within .005 It measures .007 R.C. Process	12/03/27 QSI 042	Negative effect on fit of Rocker beam, impact of rocker beam on tube & vibration characteristics	12/03/21	12/03/27	12/03/27 QSI 042	5 12/03/27
12/03/21 <u>Part #3</u>	100	width is too small should be 3.550 TO 3.560 It measures 3.538 R.C. wrong dial / operator error	↓	SCRAP P 12.03.26	12/03/21	↓	↓	5 12/03/27
12/03/21 <u>Part #4</u>	100	width is too small should be 3.550 TO 3.560 It measures 3.538 R.C. wrong dial / operator error	↓	↓	12/03/21	↓	↓	5 12/03/27

NOTE: Date & initial all entries

Work Order ID 80586

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80586

Page 2

Item ID: D2896-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Support
 Start Date: 23/02/2012 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 08/03/2012 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.00		B.A 12/03/29		B	φ		
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: LG53 Memo	0.00 0.00				AS	12 - 3 - 30		Ⓢ
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00					12/4/2		Ⓢ

u 1203-30

W/O: 80586		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2896-1 PAR #: _____ Fault Category: Machining NCR: Yes No DQA: OK Date: 12/04/04
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: OK Date: 12/4/4

NCR: 12/13/1		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
12/03/24	100	Perpendicularity is out of tolerance should be within .005 It measures .010 R.C. Process <u>X 2</u>	12/03/27 PSIO42	SCRAP. Negative effect on alignment of rocker beam. P 12.03.27	12/03/24	12/03/27	12/03/27 PSIO42	OK

$319.89 \times 2 = 639.78$

NOTE: Date & initial all entries

Picklist Print

February-23-12 1:24:12 PM

Page 1

Work Order ID: 80586

80586

Parent Item: D2896-1

D2896-1

Parent Item Name: Support

Start Date: 23/02/2012

Required Date: 08/03/2012

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP: B02.11.26Reformat; Added P/O; Added mask holeKJ

IPP Rev:C As per Rev B 07-04-16 JLM

IPP D 08.03.19 Re-format EC verified by DD

IPP REV:E

11.10.03 ASPER REV.C DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
DSK080		Manufactured	No			100	Each	11.0000	0.5	10			

DSK080

D2896-1 TURNING DETAIL

**

85 12-03-12

Location

Loc Qty

Loc Code

MAT060

11

72855

1

73927

10

x2
x5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	80586
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	Scrap 3 reject	Scrap 4 reject	5
HAAS Section								
AA	2.152	2.172		2.174	2.172	2.171	2.172	2.169
AB	2.340	2.360		2.357	2.357	2.349	2.352	2.356
AC	3.550	3.560		3.559	3.559	3.538	3.537	3.557
AD	3.770	3.790		3.7745	3.771	3.784	3.785	3.783
AE	0.065 x 0.315	0.085 x 0.335		0.070 x 0.330	0.071 x 0.330	0.071 x 0.330	0.071 x 0.330	0.071 x 0.323
AF	1.42	1.48		1.457	1.448	1.450	1.451	1.451
AG	0.833	0.853	840	0.850	0.850	0.843	0.843	0.845
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.260	0.260	0.260	0.260	0.260
AJ	0.189	0.194		0.190	0.190	0.190	0.190	0.190
AK	1.970	1.990	2.030	2.0015	1.994	1.988	1.9945	2.001
AL	0.625	0.630		0.627	0.627	0.627	0.627	0.627
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.0625	0.062	0.062	0.062	0.062
AO	0.926	0.946		0.945	0.943	0.946	0.946	0.9405
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				0.000	0.001	0.0065	0.002	0.003

Measured by: *St* 12/03/20 **Date:** 12/03/20

Audited by: *Ba* **Date:** 12/03/29

Prototype Approval: **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>St</i>

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				7	8	9	10	
HAAS Section								
AA	2.152	2.172		2.168	2.169	2.169	2.1685	2.169
AB	2.340	2.360		2.356	2.358	2.358	2.358	2.358
AC	3.550	3.560		3.557	3.558	3.558	3.559	3.559
AD	3.770	3.790		3.785	3.786	3.789	3.788	3.788
AE	0.065 x 0.315	0.085 x 0.335		0.073 x .325	0.073 x .325	0.073 x .325	0.073 x .325	0.073 x .325
AF	1.42	1.48		1.455	1.455	1.457	1.453	1.453
AG	0.833	0.853		0.844	0.847	0.847	0.844	0.848
AH	0.240	0.260		0.250	0.250	0.250	0.250	0.250
AI	0.261	0.266		0.260	0.260	0.260	0.260	0.260
AJ	0.189	0.194		0.190	0.190	0.190	0.190	0.190
AK	1.990	2.010		1.9995	2.0005	2.0025	1.9975	2.0025
AL	0.625	0.630		0.627	0.627	0.627	0.627	0.627
AM	101.75	105.75		103.75	103.75	103.75	103.75	103.75
AN	0.053	0.073		0.062	0.062	0.062	0.062	0.062
AO	0.926	0.946		0.936	0.937	0.932	0.937	0.938
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				0.010	0.001	0.002	0.0005	0.001

Measured by: <i>St</i>	Date: 12/03/25
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Audited by: <i>K.A</i>	Date: 12/03/29
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Prototype Approval:	Date:
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Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>St</i>

DART AEROSPACE LTD		Work Order:	
Description: Support		Part Number:	D2896-1
Inspection Dwg: D2896		Rev: B	Page 1 of 1

FIRST ARTICLE INSPECTION DIMENSION SHEET

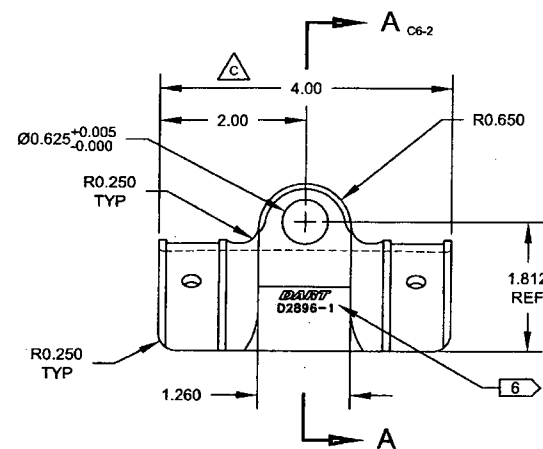
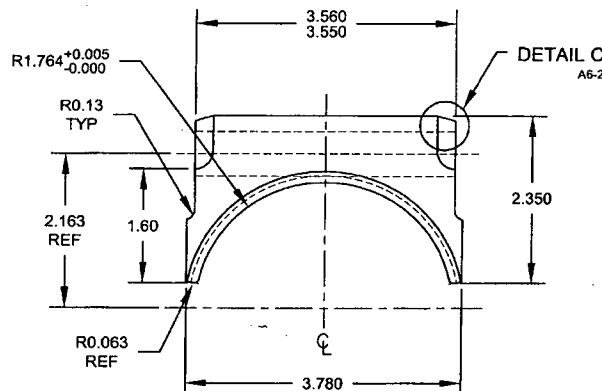
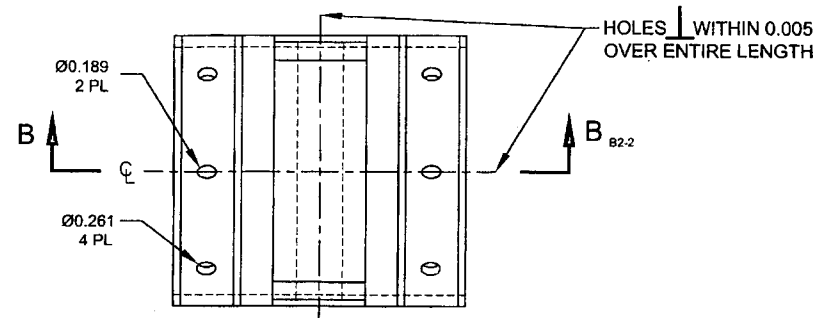
☒ First Article
 ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	$\frac{1}{16}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{2}$	5
HAAS Section								
AA	2.152	2.172		2.169	2.1715	2.170	2.170	
AB	2.340	2.360		2.356	2.358	2.356	2.357	
AC	3.550	3.560		3.559	3.558	3.558	3.558	
AD	3.770	3.790		3.788	3.789	3.785	3.785	
AE	0.065 x 0.315	0.085 x 0.335		.073x.325	.073x.325	.073x.325	.073x.325	
AF	1.42	1.48		1.450	1.450	1.450	1.450	
AG	0.833	0.853		.8465	.847	.845	.846	
AH	0.240	0.260		.250	.250	.250	.250	
AI	0.261	0.266		.260	.260	.260	.260	
AJ	0.189	0.194		.190	.190	.190	.190	
AK	1.990	2.010		2.0015	2.0005	1.9965	2.001	
AL	0.625	0.630		.627	.627	.627	.627	
AM	101.75	105.75		103.75	103.75	103.75	103.75	
AN	0.053	0.073		.062	.062	.062	.062	
AO	0.926	0.946		.940	.936	.939	.938	
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject				.0005	.0015	.0045	.0015	

Measured by:	<i>JS</i> 12/03/25	Date:	12/03/25
Audited by:	B.A 12/03/29	Date:	12/03/29
Prototype Approval:		Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>JS</i>

SHRIMP COPY
 UNCLASSIFIED COPY
 SUBS. TO AGENDMENT
 80586 M.C. J
 12/02/23



D2896-1 SUPPORT

RELEASED
 2011-09-29

NOTES:

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION
 PER ASTM A564 OR AMS 5643 OR AISI 630
 MIN UTS = 170 KSI (38 Hrc)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO AND P/N WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP PER DART QSI 044 6.3
- 7) WEIGHT: 1.76 lbs

C	RMV FINISH & UPDATE MAT'L SPEC (A8-1), 2.00 WAS 2.000, 4.00 WAS 4.000 (C4-1), REFORMAT DWG	CP	11.09.07
B	INCCORP. A1-A4, FINISHING NOTES	PH	07.03.19
A	NEW ISSUE	CP	01.10.19
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D2896	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		SUPPORT	NTS
DATE	11.09.07	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

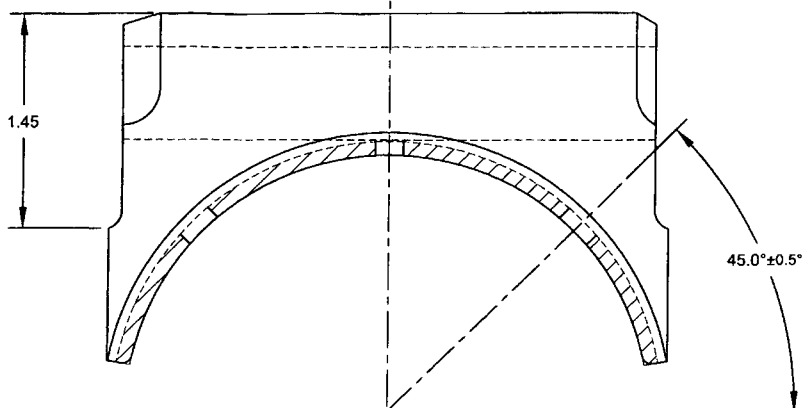
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

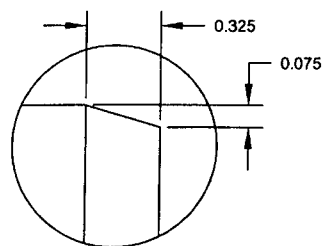
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

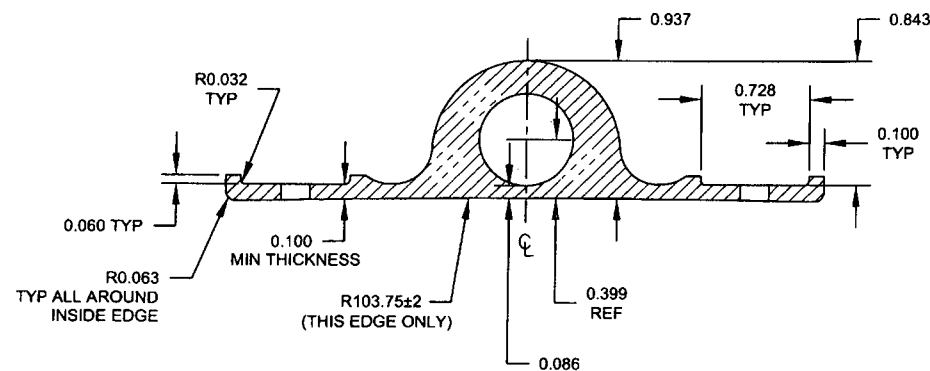
NOTE: Date & initial all entries



SECTION A-A C3-1
TOOLING HOLE DETAIL
SCALE 2X



DETAIL C C6-1
SCALE 4X



SECTION B-B D3-1
SCALE 2X

RELEASED
2011-09-29

DESIGN	JP	DART AEROSPACE LTD	
DRAWN	JP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ASS	DRAWING NO.	REV. C
MFG. APPR.		D2896	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		SUPPORT	NTS
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NOTE: Date & initial all entries